REVIEW

Northwest California: A Natural History. By JOHN O. SAWYER. 2006. University of California Press, Berkeley, CA. 264 pp. ISBN 9780520232860, \$75.00, hardcover.

In this authoritative but refreshingly slim volume, veteran botanist and plant ecologist John Sawyer describes the majestic landscapes and natural inhabitants of northwest California, an area that has occupied most of his professional career. Dr. Sawyer is an engaging and confident guide through the varied landscapes of northwest California, expertly weaving together physical and biological patterns with environmental and human history.

As the author says in the opening pages, the book is not an encyclopedia of organisms of northwest California. Rather, it is a tour of an ancient and complex region that is at once at the edge of a state and a center of biodiversity in the western United States. The book is laid out in broad themes, first describing the geography of the region, next exploring major ecological themes in sequence, including patterns in vegetation, environmental history, the evolution of species diversity, fire regimes and other agents of change, and the current and future conservation status of the region. The book is an integration of a lifetime of ecological study and learning. One cannot study botany without becoming at least a little curious about geology, environmental history, and the effects of humans on the land, and Dr. Sawyer discusses all of these topics with uncommon ease and authority. Lovers of wildlife, on the other hand, may find this volume less rich than it could be, but will still find useful insights and information.

Even the most casual visitor will notice that northwest California is diverse in its climates, landscapes, and vegetation types, so one must break up the landscape to discuss its natural history. The book takes the approach of dividing northwest California into two geologic regions, then into smaller landscape units called countries (e.g., the middle Sacramento country). The latter is unconventional, but appealing in its informality and descriptiveness. This framework is used throughout the book to describe the various ecological phenomena, from geology to vegetation to disturbance regimes.

For lovers of botanical nuts and bolts, this is no regional manual, but the author does provide broad floristic information and species lists for selected habitats. He begins by presenting a counterintuitive but interesting and, I believe, accurate view of the regional vegetation patterns.

Despite its well-known floristic diversity, he describes the region as being dominated by several climatic and elevationally driven zones that are dominated by just seven tree species. Upon this broad and deceptively simple canvas, however, subordinate species and hydrology, geology, and disturbance-associated microhabitats build impressive floristic detail. Moving from the general to the more specific, the book tells us of the major tree and shrub species in different ecological zones of the region, then adds greater detail along with descriptions of selected habitats, such as montane and subalpine meadows, serpentine and limestone outcrop areas, coastal environments, and wetland and riparian zones. Some descriptions are tantalizing. I personally cannot wait to see the "outrageous shrub diversity" on the Hosselkus Limestone of Shasta County.

For decades, northwest California has been plagued by divisive perspectives on the effects of land use. However, Dr. Sawyer brings an unusually informed and moderate view to discussions of forest management and the ecology of fire. Rather than providing hackneyed and ideological arguments for or against logging or fuels restoration, he often uses the findings from a surprisingly rich pool of primary studies in the region conducted by himself and his many student colleagues at Humboldt State University. (Graciously, he credits the students first when describing such collaborative projects.) The findings are very interesting and surprising. For instance, most Californians probably envision northwest California as a land of ancient and timeless forests, yet the author's synthesis of paleoecology and disturbance ecology paints a story of a dynamic region that has rarely been in equilibrium, despite the venerable ages of some of its trees. Many seemingly ageless forest communities have existed for just a few thousand years. Moreover, particular forest stands may owe their complexity not just to their age, but to a history of patchy fires. Still other forests may be surprisingly young and very different from the landscapes experienced and managed by the region's native peoples just a couple of centuries ago.

Visually, I found the book to be a bit wanting due to the decision to collect all the plates in the middle of the volume. The images themselves are lovely and descriptive, however. Also, the maps of each "country" in the opening chapters are exceedingly plain, consisting of a simple silver digital elevation model with a black polygon delineating the area of interest. Drawings or other illustrations are infrequent and unadorned.

Nor does the writing in the book reach the artistic heights that readers have enjoyed in the writings of some California naturalists like John Muir, David Rains Wallace, or Elna Bakker. Nonetheless, the prose is well-crafted and enjoyable.

Despite these modest shortcomings, the book should be a valuable resource to anyone interested in the ecology of northwest California. It summarizes over four decades of original research in a highly readable narrative, with sufficient tables and sources to serve as a useful reference. This slim, but substantive, book provides a great introduction to the general geography and ecology of the region and provides many interesting tidbits for those already living and working there. It would undoubtedly be a good backpacking companion to be savored by a campfire somewhere in the wilds of northwest California. The price, however, at \$75 for hardcover, might give pause to the zealous but cash poor.

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